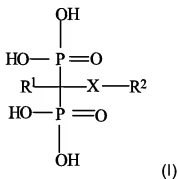


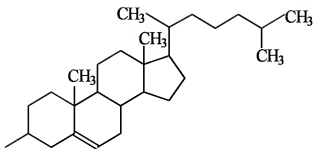
Claims

WHAT IS CLAIMED IS:

1. - 13. (canceled)
14. (new) A bisphosphonic acid of the general formula (I)



- wherein R^1 is H, OH, $\text{C}_1\text{-C}_6$ alkyl, $\text{C}_1\text{-C}_6$ alkoxy, $\text{C}_1\text{-C}_6$ hydroxyalkyl, $\text{C}_1\text{-C}_6$ aminoalkyl, $\text{C}_1\text{-C}_6$ halogen alkyl,
- X is a direct bond, alkylen group with 1 to 20 carbon atoms, $(\text{CH}_3)_m\text{-(OCR}^3\text{HCH}_2)_n\text{-(O)}_o\text{-}$, wherein R^3 is H or CH_3 and m is 0 or a number from 1 to 6, n is a number from 1 to 10, preferably 1 to 6, and o is 0 or 1,
- $\text{-(CR}^4\text{HCH}_2\text{O)}_p\text{-}$, wherein R^4 is H or CH_3 , p is a number from 1 to 10, preferably 1 to 6,
- $(\text{CH}_3)_q\text{-(OCR}^5\text{HCH}_2)_r\text{-(O)}_s\text{-(CH}_3)_t\text{-}$, wherein R^5 is H or CH_3 and q is 0 or a number from 1 to 6, r is a number from 1 to 10, preferably 1 to 6, and s is 0 or 1, and t is a number from 1 to 6,
- R^2 is a group of the formula (II)



(II)

as well as their physiologically compatible derivatives, in particular salts and trimethyl silyl derivatives.

15. (new) The bisphosphonic acid according to claim 14, wherein R¹ is OH.

16. (new) The bisphosphonic acid according to claim 14 as a chelating agent or transport agent for divalent and trivalent metal ions in technical and industrial applications, as a corrosion protection agent in technical and industrial applications, as a pharmaceutical agent, as an additive for active agent transport or as a diagnostic agent.

17. (new) The bisphosphonic acid according to claim 16, wherein the compound of the general formula (I) is bonded to an active agent or a diagnostic agent.

18. (new) The bisphosphonic acid according to claim 17, wherein the active agent or the diagnostic agent is selected from therapeutic cancer agents, virustatic agents, antibiotics, antimycotic agents, anti-inflammatory agents, substances that stimulates bone tissue or suppress bone tissue.

19. (new) The bisphosphonic acid according to claim 16 in combination with or as a component of liposomes, nanoparticles, nanospheres, nanocapsules, micelles, or polymer systems.

20. (new) A method for preparing the compound of the formula I, comprising the steps of reacting a compound of the formula II, R²-X-COOH or a reactive

derivative thereof, in a way known in the art with the bisphosphonic acid or tris(trimethylsilyl)phosphite and isolating the obtained product or converting the obtained product by hydrolysis into the free phosphonic acid.

21. (new) A liposomal composition comprising a compound of the general formula I and at least one phospholipid and a uronic acid derivative.

22. (new) The liposomal composition according to claim 21, wherein as a uronic acid derivative palmityl-D-glucuronide; galactosyl-D-glucuronide; or palmityl-D-glucuronide and galactosyl-D-glucuronide are contained in concentrations of 0.1 mol % to 25 mol %.

23. (new) The liposomal composition according to claim 21, wherein the phospholipids are selected from phosphatidyl choline, phosphatidyl glycerol, phosphatidyl ethanolamine, phosphatidyl inositol, phosphatidyl acid, sphingomyelin, ceramide in their natural, semi-synthetic or synthetic forms as well as stearyl amine and cholesterol.

24. (new) The liposomal composition according to claim 21 in the form of an aqueous dispersion or as a lyophilisate.

25. (new) The liposomal composition according to claim 21 for preparing a medicament for treating human diseases and animal diseases.

26. (new) A method for producing a liposomal composition according to claim 21, comprising the step of mixing by ultrasound, high-pressure extrusion, or high-pressure homogenization a raw mixture comprising the compound of the general formula I and at least one phospholipid and a uronic acid derivative.

27. (new) The method according to claim 26, wherein palmityl-D-glucuronide, phospholipids, bisphosphonic acid(s) or a derivative thereof of the general formula (I) and any individual active substance or combination of active substances are contained in the raw mixture.